

Attachment 8

FDA Graphic Health Warning Image Concept Testing Findings Report

**June 2016
(FINAL)**

Prepared by: Siegel+Gale

In-person interviews

The interviews took place in professional focus group facilities in each location. The interviews with Spanish-speaking individuals were conducted by a Spanish-speaking moderator. All moderators had been fully briefed on the objectives of the assignment and had completed the requisite Human Subjects Protection training. All interviews were audio-recorded so that transcripts could be provided from which to select representative quotations that document the findings in this report.

The moderator began the interview—which averaged around 30–35 minutes in length—by reminding the participant of the confidentiality of the material to be covered, assuring the participant that his or her participation was completely voluntary, and assuring him or her that comments would be treated with confidentiality. (The participant's full name was never used in any interview.) Finally, the participant was informed that we wished to record the interview for research purpose and verified that we had the participant's permission in that regard. (Note: The full Interview Guide is contained in an appendix to this report.)

A brief warm-up discussion focused on the participant's hobbies or interests. In Dallas and Teaneck, a question was added regarding what health consequences of smoking the participant was aware of prior to showing any of the concepts. This was added because it seemed that almost all participants were claiming prior knowledge of all of the conditions.

The moderator then proceeded to reveal 12 creative concepts one at a time. Each concept was shown on an 8.5" by 11" page. The image itself was shown as the upper half of a cigarette package, true to scale. In those cases where the participant was unable to conclude what the image was and/or what it was trying to convey, a second, larger image was available to reveal. This image utilized most of the 8.5" by 11" page.

For each creative concept, the moderator began by asking the participant's first impression of the concept and what was being shown. The moderator then probed into what the participant felt the intended message to consumers was. If the answer did not include a reference to smoking, the question was re-asked in the context of how the message related to smoking.

The concept was then evaluated on a series of aspects:

- **Clarity:** Did the participant understand generally what the image was meant to convey about the health consequences of smoking? Was anything confusing or unclear about the image and/or the message it was intended to convey? [Note: If a participant did not understand an image or what it was meant to convey, moderators skipped to the next image.]
- **Attention:** Did the image grab the participant's attention and why or why not? Was the image worth remembering and why or why not?
- **Credibility:** Did the participant find the image to be credible or believable (i.e., whether he or she believed that the condition reflected in the image could have resulted from smoking) and why or why not?
- **New Information:** Did the image provide the participant with any new information

- about smoking (i.e., information they did not know prior to seeing the image)?
- **Relevance:** Was the image relevant to the participant (e.g., whether the message was intended for people like him or her, whether it reminded them of a friend or relative)? Did the participant feel the image was important for smokers to see and why or why not?

This series of questions was repeated for each of the 12 concepts shown.

At this point, the participant was shown the remaining 12 concepts on a single poster-size sheet of paper. Each concept was shown in the same size as the first 12 (i.e., taking up the upper half of a cigarette package). The participant was given a couple of minutes to review all of the images and was then asked to identify 2–3 images that most attracted their attention and explain why.

At the conclusion of the interview, participants were thanked for their participation, reminded of the confidentiality of the content of the interview, offered a brochure or postcard focused on tobacco cessation (if they were interested in it), and directed back to the check-in station to sign out and receive their incentive.

To avoid any order bias in the results of the evaluation, the order of the creative concepts shown varied from participant to participant. As indicated earlier, six different versions of the stimulus books and accompanying plot (of the extra 12 concepts) were created.

The order in which the concepts were revealed is shown below:

Version	Monadic concept order	Order of concepts on plot
A	1, 4, 5, 6, 15, 10, 11, 20, 18, 24, 16, 22	2, 3, 7, 8, 9, 12, 13, 19, 17, 21, 14, 23
B	24, 2, 21, 17, 16, 5, 10, 23, 9, 7, 4, 12	20, 1, 19, 18, 15, 14, 11, 22, 8, 6, 3, 13
C	6, 15, 24, 18, 8, 19, 3, 22, 9, 12, 1, 13	5, 14, 21, 17, 16, 20, 4, 23, 7, 10, 2, 11
D	23, 3, 11, 20, 1, 19, 17, 5, 8, 7, 13, 14	22, 4, 10, 24, 2, 21, 18, 6, 15, 9, 12, 16
E	14, 13, 10, 16, 6, 7, 2, 18, 22, 21, 3, 20	9, 12, 11, 15, 5, 8, 1, 17, 23, 24, 4, 19
F	9, 15, 11, 12, 23, 14, 21, 4, 19, 8, 17, 2	6, 16, 10, 13, 22, 7, 24, 3, 20, 5, 18, 1

The remainder of this report details the findings of the research. A separate summary is provided for each creative concept as well as Siegel+Gale's professional opinion regarding how each concept could be further refined, if appropriate.

DATA ANALYSIS

This section discusses the analysis used to assess the qualitative data collected for the study. The three moderators, and insights Analyst and Creative Director reviewed the data from the interviews. No software was used. All interviews were analyzed and interpreted to determine major themes, categories and patterns within and across all 24 creative concepts. Transcripts, notes and audio files were used as the primary contents for analysis. Transcripts and audio files provided verbal data, while on-site viewing, live video streaming and notes provided non-verbal (ie. Silences, physical reactions, etc.) data for analysis. The following framework and their criteria were used to classify the creative concepts.

Clarity of image: Images were categorized by how well participants recognized what was being depicted in the image (e.g., an image of diseased lungs):

- **High:** Most participants recognize what is in the image
- **Medium:** Some participants recognize what is in the image; most participants recognize what is in the image but are unsure
- **Low:** Few participants recognize what is in the image

Clarity of message: The clarity of message was determined by how well participants understood the intended message of the creative concepts (e.g., smoking can cause lung cancer):

- **High:** Most participants understand the intended message of the image
- **Medium:** Some participants understand the intended message of the image
- **Low:** Few participants understand the intended message of the image

New information: Assessment of whether the image provided participants with new information was based on whether or not participants felt like what they were seeing was new information.

- **Yes:** Most participants indicated the image provided new information
- **No:** Few participants indicated the image provided new information or participants indicated no information of any kind was being conveyed due to confusion

Attention: Level of attention was determined by participants' views around how attention-grabbing and/or worth remembering the image was:

- **High:** Most participants found the image attention-grabbing and worth remembering
- **Medium:** Some participants found the image attention-grabbing and/or worth remembering
- **Low:** Few participants found the image attention-grabbing and/or worth remembering

Note: Images are not classified according to relevance and credibility given that most participants found all images to be credible and relevance was interpreted in different ways, making it difficult to assess true feelings of relevance.

Summary analysis by individual image

A summary of the classification of each image is shown in the chart below:

Image	Topic	Clarity (Image)	Clarity (Message)	New Info	Attention*
Image 1	Secondhand smoke	Medium	Low	No	Medium (5)
Image 2	Secondhand smoke	Medium	Low	No	Low (1)
Image 3	Lung disease	High	High	No	High (13)
Image 4	Lung disease	High	High	No	High (6)
Image 5	Cancer	Medium	Low	Yes	Medium (13)
Image 6	Cancer	Medium – High	Low	No	High (6)
Image 7	Cancer	High	High	No	High (16)
Image 8	Cancer	Medium	Medium	Yes/No	High (6)
Image 9	Cancer	High	High	No	High (13)
Image 10	Heart disease/stroke	High	Medium	No	High (6)
Image 11	Heart disease/stroke	Low	Low	Yes/No	High (14)
Image 12	Heart disease/stroke	Low	Low	Yes	Medium (2)
Image 13	Heart disease/stroke	Low	Low	No	High (9)
Image 14	Fetal effects/pregnancy	Medium – High	High	No	High (9)
Image 15	Fetal effects/pregnancy	Medium	Medium	No	High (8)
Image 16	Fetal effects/pregnancy	High	High	No	High (18)
Image 17	Erectile dysfunction	Low	Low	Yes	Medium (7)
Image 18	Erectile dysfunction	Low	Low	Yes	Medium (2)
Image 19	Diabetes	High	Medium	Yes	Low (4)
Image 20	Diabetes	High	Low	Yes	High (9)
Image 21	Diabetes	Medium	Low	Yes	High (14)
Image 22	Blindness	High	Low	Yes	High (8)
Image 23	Blindness	Low	Low	Yes	Low (1)
Image 24	Death	Medium	Medium	No	High (3)

*Numbers in parentheses indicate the number of times the image was selected as attention-grabbing from the plot shown at the end of each interview. For more information, see Appendix B.

ALL IMAGES & ID NUMBERS



Image 1



Image 2



Image 3



Image 4



Image 5



Image 6



Image 7



Image 8



Image 9



Image 10



Image 11



Image 12



Image 13



Image 14



Image 15



Image 16



Image 17



Image 18



Image 19



Image 20



Image 21

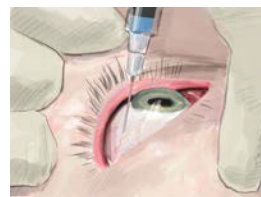


Image 22



Image 23



Image 24

Group 1:

SECONDHAND SMOKE

Image 1

Image 2

IMAGE 1**GROUP 1: SECONDHAND SMOKE (1/2)**

**CREATIVE CONCEPT**

Caucasian male child in a hospital gown wearing a respiratory mask to depict the effects of secondhand smoke exposure in children.

POTENTIAL WARNING STATEMENT

WARNING: Secondhand smoke causes respiratory illnesses in children like pneumonia.

OVERVIEW

Clarity of image:	Medium
Clarity of message:	Low
New information:	No
Attention:	Medium

SUMMARY

- Most participants found **IMAGE 1** clear and described the image subject as a female wearing an oxygen mask. Most believed the image conveyed the message that excessive smoking can lead to coughing, lung cancer or breathing complications. Only a few Spanish-speaking participants were able to recognize secondhand smoking as the health consequence depicted in the image. This image did not provide participants with new information and was seen as credible. The sadness expressed in the subject's eyes and the oxygen mask grabbed participants' attention. However, the image was seen as less attention-grabbing than the rest of the images.

Image/Message clarity: Most participants found the image to be very clear in its depiction of someone wearing an oxygen mask. A few mentioned confusion around the specific reason for the oxygen mask, but most participants thought the main message of **IMAGE 1** was that excessive smoking can lead to coughing, lung cancer or breathing problems. A few Spanish-speaking participants recognized the health consequence of secondhand smoking.

"It's clear, especially on a pack of cigarettes." – English, Male Adult Smoker, DAL

"It makes pretty clear sense." – English, Female Adult Smoker, PHX

"I think it's pretty straightforward." – English, Female Young Adult Smoker, TNK

"It's confusing because you can't really tell why she's [in the hospital]. I just know she's in there because she has that on her nose." – English, Female Youth, DAL

"The message is not 100% clear—it's not clear what is causing her to have a mask on." – English, Female Young Adult Smoker, TNK

*"It's perfectly clearly understood. It's not healthy. I can tell by the expression on the kid."
– Spanish, Female Adult Smoker, DAL*

"Asthma or emphysema. Anything related to cigarette smoking." – English, Male Young Adult Smoker, DAL

*"It could be trouble breathing or lung cancer. Doesn't seem that old...maybe in 30s or 40s."
– English, Female Young Adult Smoker, TNK*

"Cigarette smoking can lead to other health issues such as needing oxygen tanks by not being able to breathe." – English, Female Adult Smoker, DAL

"I'm going to end up in the hospital...that looks like where the person is at of course, with the mask on. She's having a hard time breathing...something's wrong with her respiratory area." – English, Female Young Adult Smoker, DAL

"If you smoke, you'll need a ventilator of sorts or a breathing apparatus." – English, Female Adult Smoker, PHX

"Lungs are doing bad and can't function well." – English, Female Youth, PHX

*"The smoke gets to my kids. I see this being duplicated with my kids. It **sends me into despair**." – Spanish, Female Adult Smoker, DAL*

*"Aside from having problems for yourself, you can also affect others...I don't like it because one loves their family and you don't want to see them suffering. It's clear that she is suffering."
– Spanish, Female Youth, PHX*

Attention: Most participants found the oxygen mask and the female's sad expression in **IMAGE 1** to be particularly noticeable. A few felt the image was less attention-grabbing compared to other images.

Does this image grab your attention? What grabbed your attention?

"Yes, it's pretty realistic. The mask grabbed my attention." – English, Female Young Adult Smoker, TNK

"The thing on her mouth grabs my attention." – English, Male Youth, DAL

[Why does it grab your attention?] "Because not many people have oxygen masks on every day." – English, Male Youth, PHX

"Yes...the sadness in her eyes." – English, Female Adult Smoker, PHX

"Yes...because you can see that she's just sad." – English, Female Teen, PHX

"No...because 90% of health issues that I have been informed about on the topic of smoking cigarettes is due to breathing problems or chest respiratory problems. So it doesn't catch my attention." – English, Male Young Adult Smoker, DAL

"No...it didn't grab my attention because I know the effects of smoking." – English, Male Young Adult Smoker, PHX

[How does it grab your attention?] "It works sufficiently cruelly." – Spanish, Female Adult Smoker, DAL

Is this image worth remembering?

"Yes, because of the things that I've heard about breathing issues with cigarettes." – English, Male Young Adult Smoker, DAL

"Yes...because you don't want to be in that place to where you have to go to the hospital because of shortness of breath." – English, Female Youth, DAL

"Yes, because her nose and mouth are covered. If you continue to smoke, this could potentially be you. I don't want to be living with that on my face." – English, Female Adult Smoker, PHX

"Yes...it's on the back of a cigarette pack and she has something on her face." – English, Male Youth, DAL

"Yes, it's sad and memorable." – English, Male Adult Smoker, PHX

"It's powerful...to see the child. It affects the majority of people with children. So, that's what touches me." – Spanish, Female Adult Smoker, DAL

"I think that us humans get things more through images and sound. The image serves to remind you of the rest. I will return to remember this one." – Spanish, Female Adult Smoker, DAL

IMAGE 3

LUNG DISEASE (1/2)



INTENDED CREATIVE CONCEPT

Gloved hands holding diseased lungs in a sterile environment to depict fatal lung disease from smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking causes COPD, a lung disease that can be fatal.

OVERVIEW

Clarity of image:	High
Clarity of message:	High
New information:	No
Attention:	High

SUMMARY

- Both the content and message of **IMAGE 3** was very clear and attention-grabbing. Nearly all participants described the image as a pair of black lungs damaged from smoking.
- This image was seen as credible and did not provide any new information to participants.
- Participants were particularly affected by the image's harsh depiction of a body organ in the palms of a surgeon.

Image/Message clarity: Most participants found **IMAGE 3** to be clear and credible given their base knowledge of smoking consequences. Most participants believed the intention of **IMAGE 3** was to convey the risks of lung damage as a result of smoking.

"Yes, yes, yes! It's clear." – English, Female Adult Smoker, DAL

"Oh no, it's clear." – Spanish, Female Young Adult Smoker, PHX

"Yes, it's probably one of the most clear messages so far. It's clear and I like that." – English, Female Young Adult Smoker, TNK

*"Yes [the image is credible], because I've seen images like that before. I've seen them online."
– English, Male Youth, TNK*

"Yes, based on what I have been taught previously about cigarettes and how they can affect you, I can believe it." – English, Male Young Adult Smoker, DAL

"It's clear. I think it's saying 'Buy this pack of cigarettes and this is what your lungs will look like in years to come.'" – English, Female Adult Smoker, TNK

"As far as I understand, lungs are pink and full and shapely, and those do not fit the criteria at all. [This image shows] long-term side effects of smoking." – English, Male Young Adult Smoker, DAL

"When you smoke, it damages your lungs and you end up dying earlier than you're supposed to because you're smoking." – English, Female Youth, DAL

"Smoking is unhealthy for lungs." – English, Male Young Adult Smoker, PHX

"This is what lungs can look like if you continue to smoke." – English, Female Youth, PHX

"Your lungs are going to look like soot." – English, Female Adult Smoker, PHX

"Cigarettes can cause you to have blackened, cancerous lungs." – English, Female Adult Smoker, TNK

"If you smoke cigarettes, you can get lung cancer." – English, Female Adult Smoker, DAL

"Lung cancer." – English, Male Young Adult Smoker, DAL

Attention: Participants found **IMAGE 3** attention-grabbing because of its **gruesome** depiction and implication of death.

Does this image grab your attention? What grabbed your attention?

"Yes, because it's so dark. It makes you look at it. The coloring and the fact that the hands look all bloody on the sides." – English, Female Adult Smoker, TNK

"Yes...because not only do the lungs look sickly, but I also see a pair of gloves which would lead me to believe that this would be specifically from the Surgeon General saying, 'Hey, this is what's going to happen.'" – English, Male Young Adult Smoker, DAL

"Yeah...they are black lungs being held in the coroner's or medic's hands."
– English, Female Adult Smoker, PHX

"The lung that's already just black and decayed and out there being held in the hands of someone, a medical professional or something — it's just very dramatic." – English, Female Adult Smoker, TNK

"Those are very black lungs. No wonder this person died. He just can't breathe." – English, Female Adult Smoker, PHX

"Everyone knows about this. I like this for the same reason why I liked the heart picture [because the surgeon is holding it]. This conveys that the person died." – English, Male Young Adult Smoker, DAL

"Yes, because the blood on the gloves makes it feel like it was just taken out of someone."
– English, Male Young Adult Smoker, DAL

"I've never seen it with a doctor who has taken [the lungs] out of a person and they are looking at it right in front of them." – Spanish, Female Young Adult, PHX

Is this image worth remembering?

"Almost definitely." – English, Female Adult Smoker, PHX

"Yes, just because it is slightly harsh, but not offensive. It's something that's not common to see on a pack of cigarettes, so I would definitely remember it." – English, Male Young Adult Smoker, DAL

"Yes, I hope I don't get lungs like that." – English, Male Adult Smoker, PHX

*"Yes. Because it's sad and **grotesque**, and it would make you want to cut down on the cigarettes and then quit."* – English, Female Adult Smoker, DAL

*"Yes...this is **the perfect image to show somebody who you don't want to smoke.**"* – English, Female Young Adult Smoker, PHX

IMAGE 4

LUNG DISEASE (2/2)



INTENDED CREATIVE CONCEPT

Middle-aged Caucasian male with nasal cannula and an oxygen tank to depict serious lung disease from smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking causes serious lung diseases like emphysema and chronic bronchitis.

OVERVIEW

Clarity of image:	High
Clarity of message:	High
New information:	No
Attention:	High

SUMMARY

- **IMAGE 4** was very clear to most participants. The image was seen as a credible depiction of a man with a breathing tube and indicated the relationship between smoking and lung damage and/or breathing issues.
- Participants could clearly identify that the man needed assistance from an oxygen tank or breathing tube.
- While this image did not deliver any new information, it was especially attention-grabbing due to the sadness and pain depicted in the man's expression.

VERBATIMS

First impressions: Upon viewing **IMAGE 4**, most participants noticed the man's somber expression. They also saw the breathing tube on his face, as well as the oxygen tank in the background, and perceived that he has a breathing problem.

"This guy is miserable, makes you uncomfortable." – English, Male Young Adult Smoker, PHX

"I see a sad adult face." – English, Male Adult Smoker, DAL

"Kind of scared...[he's] struggling with the fact that he has breathing tubes...this one doesn't look very happy either." – English, Female Adult Smoker, PHX

"There's something in his nose. I've seen people with that before, but I don't know what it's called." – English, Male Youth, TNK

"This person maybe cannot breathe. He needs something to support him." – English, Female Youth, DAL

*"Wow, it seems that the man has a tube to breathe. He is sick. One hundred percent sick."
– Spanish, Male Young Adult Smoker, TNK*

"He has a breathing tube." – English, Female Young Adult Smoker, TNK

"There's an O2 tank in the back and the nasal thing. I think he has COPD, and they are hooked up to the O2 machine." – English, Male Young Adult Smoker, TNK

"The oxygen tank. This person obviously has breathing problems...it looks like he's gasping for air." – English, Female Adult Smoker, TNK

"Looks like oxygen is being pumped into her nose, or his nose, from the tank." – English, Male Youth, DAL

Image/Message clarity: IMAGE 4 was seen as straightforward and recognizable to the majority of participants. Participants believed that **IMAGE 4** expressed the message that smoking can lead to lung damage and breathing issues.

"It's clear, being that it's on a cigarette box." – English, Male Young Adult Smoker, TNK

"It's clear and straightforward. Smoking will cause medical problems." – English, Female Young Adult Smoker, TNK

"No, I don't think it's confusing at all." – English, Female Adult Smoker, PHX

"There's nothing unclear." – English, Female Young Adult Smoker, DAL

"Yes. I saw a commercial showing people that got this stuff happening to them from smoking. I saw one with a woman in the hospital...she had that thing on her face." – English, Male Youth, DAL

"Yes, very clear because we've seen people like this in the commercial centers, or in the hospital. They are like this because of smoking." – Spanish, Male Young Adult Smoker, TNK

"Yes, because I've seen people smoking while they have that on." – English, Female Youth, DAL

"Yes, because it can happen in real life." – English, Female Young Adult Smoker, TNK

"This is very credible because it can happen to you." – Spanish, Male Adult Smoker, PHX

"You'll be on oxygen—I assume you're not being able to get enough air into your lungs. Your lungs aren't able to work properly. You have to carry that thing around and you have to carry the cord around your house." – English, Female Adult Smoker, TNK

"The guy is on oxygen because he needs help to breathe because that's what smoking has done. His lungs are not as strong anymore." – English, Female Youth, DAL

"Because you smoke you'll have trouble breathing and you'll have to use an air tank." – English, Male Youth, TNK

"The consequence will have something to do with the nasal parts or lungs." – English, Female Youth, DAL

"Illness...maybe because of smoking. Or what happens after." – Spanish, Female Adult Smoker, DAL

"He's getting help with oxygen because his lungs aren't good." – English, Male Young Adult Smoker, PHX

"I think this one has a problem breathing." – Spanish, Male Youth, DAL

"[The health condition is] not being able to breathe." – English, Male Adult Smoker, DAL

"It's saying that you can be affected and...walk around with the machines and all that without being able to do a bunch of things. It's like living without living." – Spanish, Male Adult Smoker, PHX

"Smoking affects your breathing. You have to carry that cord everywhere you go." – English, Female Young Adult Smoker, TNK

"Lung cancer is the health consequence of smoking." – English, Male Young Adult Smoker, PHX

"Smoking causes oxygen breathing problems." – English, Male Youth, PHX

Attention: Participants found **IMAGE 4** especially attention-grabbing and memorable. Many mentioned the man's miserable expression and external oxygen aids as particularly attention-grabbing.

Does this image grab your attention? What grabbed your attention?

"It did. He looks upset, tired like he's just—I mean the expression on his face is just kind of like, 'Oh my gosh. What's my life come to?'" – English, Female Adult Smoker, TNK

"It does, just because, once again, there's a miserable human on the pack of cigarettes, but compared to some previous pictures, no.... Immediately you see this disgust and just how miserable he is. Well, he looks sad, like a helpless animal." – English, Male Young Adult Smoker, PHX

"Yes. It looks like the man was asking for help or [having] trouble breathing. He's having trouble breathing and he doesn't like that. I mean, because of smoking he had trouble breathing. He had to breathe through an air tank." – English, Male Youth, TNK

"Yes, because somebody has to rely on oxygen and be self-like not, they can't do it on their own because of cigarettes." – English, Female Young Adult Smoker, DAL

*"Yes, it grabs my attention because he is suffering and because we see this tube. You can see it in his face. This guy is in pain, he is suffering and is sad. He doesn't have much time left."
– Spanish, Male Young Adult Smoker, TNK*

"Yes...because of the tank in the background and because she has this tube that's on her nose. It looks like the tank is providing the stuff that's inside the tube to go to her nose." – English, Male Youth, DAL

"This guy stood out because he's hooked up to an oxygen tank." – English, Male Young Adult Smoker, DAL

Is this image worth remembering?

"It's worth remembering because it could happen to me basically. I should know what could happen for me with a bad habit like this." – English, Female Young Adult Smoker, TNK

"It could be - because it just makes you think, 'This guy's not that old.' So, it could happen to anyone at any time and I like to breathe fresh air..." – English, Male Young Adult Smoker, PHX

*"Yes...because maybe if people see that they're going to have that for the rest of their life, maybe they'll stop."
– English, Female Youth, DAL*

"Yes—me, personally, I wouldn't want to be having to carry around an oxygen tank wherever I go, me being connected to a tube all day just so I can help myself breathe. I would want this only because it is something I wouldn't want happening to me." – English, Male Adult Smoker, TNK

IMAGE 8

CANCER (4/5)



INTENDED CREATIVE CONCEPT

Senior Caucasian female with a visible lump on her neck due to oropharyngeal cancer from smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking causes head and neck cancer.

OVERVIEW

Clarity of image:	Medium
Clarity of message:	Medium
New information:	Yes/No [Responses were mixed]
Attention:	High

SUMMARY

- The majority of participants saw the protrusion on the side of the woman's neck in **IMAGE 8**, though this wasn't the first aspect to catch their attention.
- In some cases, participants noticed the woman's facial expression before the protrusion.
- There was some confusion about what the protrusion was, but many identified a tumor or cancer as the potential health consequence.
- Some participants requested to view the larger image for clarity.
- There was a split between those who found the image to convey new information and those who didn't.

VERBATIMS

First impressions: Most participants mentioned the protrusion on the woman's neck upon viewing **IMAGE 8**. A few initially noticed and focused on the woman's expression.

"The drawing is either like a tumor or some kind of a boil or a giant lump on this woman's neck." – English, Female Young Adult Smoker, TNK

"It's a woman who looks like she has a tumor on her neck. It's a tumor." – Spanish, Male Young Adult Smoker, TNK

*"Kind of **disgusting**. I think the smoker has a tumor on their neck, or something on their body." – English, Female Youth, TNK*

"I see a tumor on the side of her neck." – English, Male Young Adult Smoker, PHX

"It's a tumor, a tumor in the neck. Somebody old. Very sad." – Spanish, Female Youth, PHX

*"This person has obviously got a tumor in her neck of some sort and it's probably very painful and causes a lot of grief, and everybody's wishing that they knew then what they know now."
– English, Male Adult Smoker, PHX*

"It looks like a tumor in the neck." – English, Female Adult Smoker, TNK

"A tumor, maybe." – English, Female Young Adult Smoker, DAL

"An older woman who has a tumor in her neck." – English, Male Young Adult Smoker, DAL

"There's a lump on her neck." – English, Male Adult Smoker, PHX

"Looks like she has a growth on her neck. I think you have lymph nodes right here as a smoker that can become tumors or cancerous." – English, Female Adult Smoker, PHX

"She looks miserable because of the cancerous tumor on her neck." – English, Male Young Adult Smoker, PHX

"She's obviously got something here." – English, Male Adult Smoker, PHX

"A person on a cigarette box that doesn't look happy." – English, Female Adult Smoker, PHX

"The person looks sad." – English, Female Youth, PHX

"Seeing this woman, she looks like she is in bad shape, truth be told." – Spanish, Male Young Adult Smoker, TNK

Image/Message clarity: Most participants found the woman's condition clear. However, there were some who mentioned they were confused about the protrusion on the woman's neck. The most common message associated with **IMAGE 8** was that smoking can cause tumors or throat cancer.

[Is there anything confusing or unclear about this image?] "No." – English, Male Young Adult Smoker, PHX

"There's nothing unclear. I'm familiar with lymphoma, but if I wasn't, I wouldn't know what that was." – English, Female Adult Smoker, DAL

"Yes, it's clear that cigarettes can cause many problems." – Spanish, Female Youth, PHX

"No, not clear. Like, what exactly is that? You know it's something health-wise but you just don't know exactly, is it a tumor? But tumors are mostly cancers." – English, Female Young Adult Smoker, DAL

"A little confusing — a person might think it could be something else." – English, Male Adult Smoker, DAL

"Unclear. I'm not sure what this is saying...I don't know what caused that." – English, Female Young Adult Smoker, TNK

"You could get a tumor or blood clot." – English, Female Young Adult Smoker, PHX

"Continuing to smoke, something like [a tumor] could happen." – English, Male Young Adult Smoker, PHX

"If you smoke a while, it can cause many problems. You don't think about it at the beginning [of the habit], but the image is showing that it can cause cancer, tumors and all that." – Spanish, Female Youth, PHX

"I'd get cancerous tumors." – English, Male Youth, TNK

"You could get tumors or abscesses." – English, Male Young Adult Smoker, PHX

[After viewing larger image] "Looks like you could get a tumor." – English, Female Youth, PHX

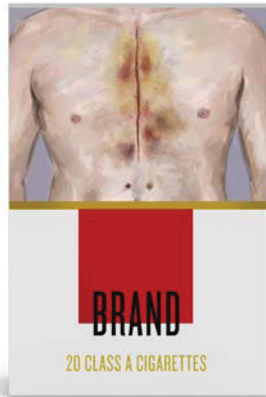
"Smoking can cause throat cancer." – English, Male Adult Smoker, DAL

"It can be any forms of cancer. Not just cancer, but it can give you lymphoma which that's what that looks like." – English, Female Adult Smoker, DAL

"Throat cancer. I've never seen anyone with a tumor in the neck." – English, Female Adult Smoker, TNK

IMAGE 11

HEART DISEASE/STROKE (2/4)



INTENDED CREATIVE CONCEPT

Middle-aged Caucasian male with scarring/bruising from recent heart surgery due to heart disease from smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking can cause heart disease and stroke by clogging your arteries.

OVERVIEW

Clarity of image:	Low
Clarity of message:	Low
New information:	Yes (Spanish speaking), No (English speaking)
Attention:	High

SUMMARY

- Many participants found **IMAGE 11** visually unappealing and identified it as a post-op torso, with a few suggesting a post-autopsy cadaver.
- Many focused on the vertical split down the chest, as well as the bruising around the chest area, which caused confusion for some. There was also confusion around the two dots located at the bottom of the torso.
- Several needed to be shown the larger image for clarity
- The message was unclear, and many didn't understand what the image was trying to convey. Some thought the subject might have lung cancer, while others thought the subject needed heart surgery.
- Spanish-speaking participants thought the image provided new information while English-speaking participants did not.

VERBATIMS

First impressions: Participants were able to spot the incision on the subject's torso upon viewing **IMAGE 11**.

"Bruising, being cut open for surgery." – English, Female Young Adult Smoker, DAL

"I don't like this at all. It looks like a person had an operation on their lungs because they are cut in the center of the breast, and they opened them up. Ugly." – Spanish, Male Young Adult Smoker, TNK

"First impression of that is someone has been smoking, and his lungs have begun to darken or change color from years of smoke." – English, Male Adult Smoker, DAL

"It's ugly to see that they cut into the person to see their lungs, and everything is all black, dirty." – Spanish, Female Youth, PHX

"That somebody might have had to have lung surgery, or they're either on the table at the morgue already." – English, Female Adult Smoker, PHX

"Smoking kills... It looks like there was an autopsy done, or a lung removal." – English, Female Adult Smoker, TNK

Attention: The cut down the middle of the subject's chest was the most attention-grabbing part of **IMAGE 11**.

Does this image grab your attention? What grabbed your attention?

"A little bit, not much." – English, Female Young Adult Smoker, PHX

"Yes, in a negative way, but they should all be kind of negative...it's kind of like this is the reality of what's going to happen if you smoke cigarettes." – English, Female Adult Smoker, TNK

"Oh, yes...Just actually seeing the picture and from--say, a person that smoked maybe ten years compare it to a person that smokes 15 to 20 years is a difference. How the smoke--the smoke--they smoked for several years, it affects the lungs." – English, Male Adult Smoker, DAL

"It's powerful...I see that I am harming myself. That I am mutilating myself. That I am hurting myself." – Spanish, Female Adult Smoker, DAL

"Yes. Well, because there is a very long incision in the front of his body, a lot of bruising. I understand that's a surgery that's very painful and has a long recovery time. Yes. That's why it's memorable." – English, Female Adult Smoker, PHX

"Yes, it grabs your attention because the image is ugly, seeing someone with the breast open." – Spanish, Male Young Adult Smoker, TNK

"Because I'm curious about why they needed to cut open his heart." – English, Male Youth, TNK

Is this image worth remembering?

"Not necessarily...this could have been from something else than smoking, but I necessarily don't know. So I really wouldn't think about it." – English, Female Young Adult Smoker, TNK

"Yes....Because it not only is reminding you of possible health risks when you do smoke, but it's showing the crudeness of it." – English, Male Young Adult Smoker, DAL

"Yes. I mean, I wouldn't want to remember it. I wouldn't want to remember any of them, but it probably would, I would remember it." – English, Female Adult Smoker, TNK

IMAGE 14**FETAL EFFECTS/PREGNANCY (1/3)**

**INTENDED CREATIVE CONCEPT**

Caucasian infant on a scale demonstrating low birth weight due to maternal smoking during pregnancy.

POTENTIAL WARNING STATEMENT

WARNING: Smoking during pregnancy stunts fetal growth.

WARNING: Smoking during pregnancy causes premature birth.

WARNING: Smoking during pregnancy causes premature birth and low birth weight.

OVERVIEW

Clarity of image:	Medium
Clarity of message:	High
New information:	No
Attention:	High

SUMMARY

- **IMAGE 14** clearly conveyed the message that cigarette smoking during pregnancy can cause low birth weight.
- There was some uncertainty around what the baby was placed on. Some thought it was in an incubator, while only a few identified the scale at first glance.
- The depiction of an underweight newborn was emotionally attention-grabbing to most. This seemed to be true with many Spanish-speaking participants.

Attention: The majority of participants found **IMAGE 14** attention-grabbing due to the baby. Nearly all found it an important image for smokers, especially pregnant women, to see.

Does this image grab your attention? What grabbed your attention?

*"It's **heartbreaking**, really." – English, Female Youth, TNK*

*"It's very **emotional** because everyone needs to know that you shouldn't smoke when you're pregnant." – Spanish, Male Young Smoker, PHX*

"Yes, because I was premature and my mother smoked." – English, Female Adult Smoker, TNK

"A little bit, yes. There's a big baby on the front of it." – English, Female Young Adult Smoker, DAL

"I'm not used to seeing babies on my cigarettes." – English, Male Young Adult Smoker, DAL

"It would grab my attention, that's for sure." – English, Male Young Adult Smoker, DAL

*"It would. It **would really creep me out**." – English, Female Adult Smoker, TNK*

"Yes, because of the fact that I'm a parent." – English, Male Young Adult Smoker, DAL

"Yes, because just being born the child is so helpless. It wasn't his choice. It's unfair." – English, Female Youth, TNK

"When you hurt yourself, you know what you're doing. But when you are hurting another person, it hits you harder because you are messing up someone else's life." – Spanish, Male Young Adult Smoker, TNK

"Yes, because of the baby. Everybody loves babies. They're the future." – English, Female Young Adult Smoker, DAL

"Yes it's impactful because it's universal that you should know that you can't smoke...for the babies." – Spanish, Male Younger Smoker, PHX

Is this image worth remembering?

"I guess, yeah. It seems like a pretty powerful image." – English, Male Young Adult Smoker, DAL

"Definitely. Because if someone is planning on having a child and they want the best for the child, then I think they should take this image into consideration." – English, Male Young Adult Smoker, DAL

"Yes...because it's a baby. You will remember the consequences of it." – English, Female Young Adult Smoker, DAL

"Yes, it would be worth remembering because if it was on a pack of cigarettes and a pregnant lady had one, looking at it would make her not want to smoke." – English, Female Young Adult Smoker, DAL

"I believe this image is meant for all genders, but would affect females more than males." – English, Male Young Adult Smoker, DAL

Attention: IMAGE 19 was considered memorable and attention-grabbing not because of its visual qualities but because of the novelty of the information it conveyed.

Does this image grab your attention? What grabbed your attention?

"Yes, because I don't understand it." – English, Female Young Adult Smoker, DAL

"Yes, because I would just want to know why that would be on a pack of cigarettes." – English, Female Young Adult Smoker, TNK

"I'm diabetic so this affects me. I know now what they're trying to say but my diabetes is not affected by my smoking." – English, Male Adult Smoker, PHX

"A little bit, because I never knew anybody who got diabetes from smoking." – English, Female Adult Smoker, TNK

"Yes...it would take more than a couple seconds to glance at this and figure out what the common ground is between diabetes and smoking." – English, Male Young Adult Smoker, DAL

Is this image worth remembering?

"Well, if [smoking] led to diabetes, I would say so." – English, Male Young Adult Smoker, PHX

"It's just because I've never heard of getting diabetes from smoking, so I'm going to remember that one." – English, Female Young Adult Smoker, PHX

"I don't associate diabetes with smoking, so that would be news to me...[this] would be an important image to include." – English, Female Adult Smoker, TNK

"It would be new [information] because I don't know if it does or doesn't [cause diabetes]. But, I know a lot of diabetics and they smoke like trains with the exception of me." – English, Male Adult Smoker, PHX

"Yes, because of the diabetes. Not so much as the other ones. But I mean, yes, I'll remember what it looks like to stick somebody in the finger for diabetes." – English, Female Adult Smoker, DAL

"No, diabetes is probably not the biggest problem from smoking." – English, Female Adult Smoker, TNK

IMAGE 20

DIABETES (2/3)



INTENDED CREATIVE CONCEPT

Close-up of a Caucasian female with amputated toes due to complications from diabetes resulting from smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking reduces blood flow to the limbs, which can require amputation.

OVERVIEW

Clarity of image:	High
Clarity of message:	Low
New information:	Yes
Attention:	High

SUMMARY

- It was clear to all participants that the subject in **IMAGE 20** was missing some toes, but the reason why or how was unclear. Some thought the toes had been amputated due to bad circulation or bone issues.
- Only a few adult participants mentioned diabetes as the health consequence depicted in the image.
- The image provided new information to the majority of participants.
- It was also very attention-grabbing, especially amongst females. The high attention was due to the **startling** image of a subject with missing toes and the implication of that as a result of smoking.

Image/Message clarity: While participants found the image to be very clear in its depiction of missing toes, the reason behind it was unclear or unknown. The most common explanation participants offered for **IMAGE 20** was that cigarette smoking can lead to toe damage or amputation.

"It's confusing...I don't know how smoking is related to toes." – English, Male Adult Smoker, DAL

"I can only answer kind of a yes and a no—I don't know it's looking like a pair of ugly feet." – English, Female Young Adult Smoker, DAL

"It's not clear." – English, Male Young Adult Smoker, DAL

"Just what is the particular health risk that caused the removal of these toes?" – English, Male Young Adult Smoker, DAL

"It's pretty straightforward that you can get your toes amputated." – English, Female Young Adult Smoker, TNK

"Well, this is new, but it looks like it's suggesting that if you smoke, you may have some issues with bones either deteriorating or needing to be removed...bone cancer maybe." – English, Female Adult Smoker, PHX

"Missing toes? I don't think that's caused from smoking. Maybe unless it's something like you're not getting enough oxygen throughout your body because you're smoking, and it made you lose your toes because there was no blood flowing." – English, Female Young Adult Smoker, DAL

"Well, I'm not sure as to how cigarettes would affect this specific body part being either removed or amputated." – English, Male Young Adult Smoker, DAL

"They are showing that you can lose something on your body." – Spanish, Male Youth, DAL

"Smoking will cause me to get fingers, toes amputated." – English, Female Young Adult Smoker, TNK

"Maybe it's because [the feet] got infected by the nicotine and they had to cut off her toes." – Spanish, Female Young Adult Smoker, PHX

"This is showing the effects of feet and getting toes cut off." – English, Female Adult Smoker, TNK

"Smoking can cause severe damage to toes. You'd have to surgically cut them off." – English, Male Youth, TNK

"If you want to look at your feet with 5 toes, then you shouldn't smoke." – Spanish, Female Young Adult Smoker, PHX

"That you can lose limbs or...I don't know exactly how it happens." – English, Female Young Adult Smoker, DAL

"Ok, this is new to me. A person without toes. Does this mean I won't be able to walk?!" – Spanish, Female Adult Smoker, DAL

"I don't know if cigarettes make stuff fall off your body. So I don't really know about this, to be honest." – English, Male Youth, DAL

Attention: IMAGE 20 was considered attention-grabbing and memorable especially amongst females because it showed feet with missing toes and provided new information to participants.

Does this image grab your attention? What grabbed your attention?

"Yes, because she's missing toes." – English, Male Youth, DAL

*"This one is more effective. The other toe one was gross, but this one has toes missing."
– English, Female Adult Smoker, TNK*

"It grabbed my attention because it's probably one of the grosser pictures." – English, Female Adult Smoker, DAL

*"It's **powerfully disturbing**. Disturbing because I can't imagine not being able to walk." – Spanish, Female Adult Smoker, DAL*

*"Yes...well I would say it's not normal, so it leaves me inquisitive as to what's going on."
– English, Male Young Adult Smoker, DAL*

"Yes, it got my attention. I don't think kids would get anything out of this. They wouldn't understand it. Lung cancer or death is the warning that you hear all the time. But you don't really hear about the loss of toes or fingers." – English, Female Adult Smoker, TNK

*"Yes, it does...the **shock value**." – English, Female Adult Smoker, TNK*

"Yeah... because it's not something you think about in terms of smoking." – English, Female Youth, TNK

"Loss of toes...I wasn't aware you could lose limbs from that." – English, Female Young Adult Smoker, TNK

"Because I didn't know smoking could anything to your feet." – English, Female Adult Smoker, PHX

Is this image worth remembering?

*"I couldn't imagine walking around like that as a smoker. That **really just disgusts me**." – English, Female Adult Smoker, TNK*

"No, because you see people with half an arm and you try not to remember it. You try not to think about stuff like that." – English, Male Young Adult Smoker, DAL

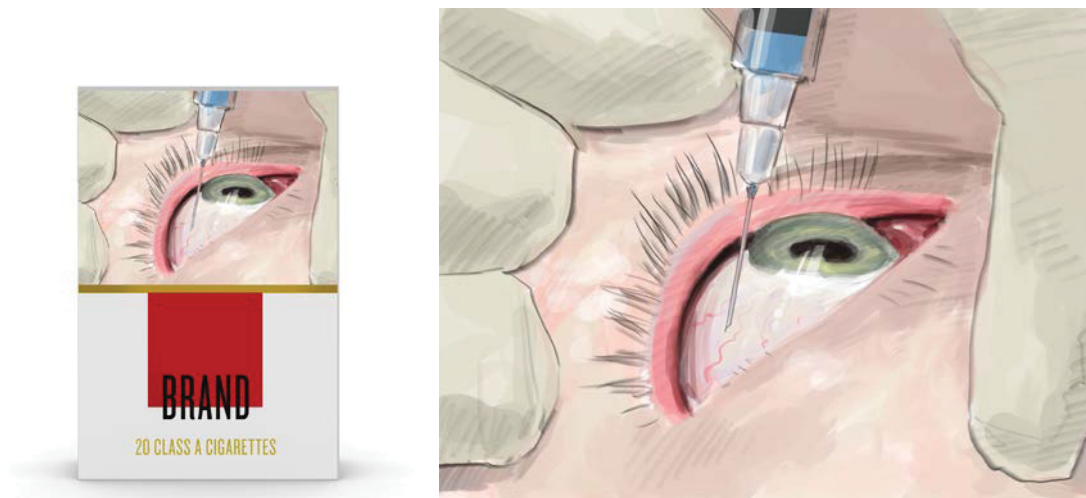
"Yes, because it looks very painful." – English, Female Adult Smoker, PHX

"Yes...because it's new information." – English, Female Youth, TNK

"I've never seen or heard of having to have your toes or feet cut." – Spanish, Male Adult Smoker, PHX

IMAGE 22

BLINDNESS (1/2)



INTENDED CREATIVE CONCEPT

Close-up of a middle-aged Caucasian female receiving an injection in the eye to treat macular degeneration caused by smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking causes age-related macular degeneration, which can lead to blindness.

OVERVIEW

Clarity of image:	High
Clarity of message:	Low
New information:	Yes
Attention:	High

SUMMARY

- **IMAGE 22** evoked visceral reactions and statements of discomfort from most participants.
- Participants could see that the eye was getting an injection, but the majority could not connect the image to blindness. Most suggested the message might be that smoking could lead to “eye problems.”
- The image was both attention-grabbing and memorable because participants could not understand why the injection was necessary and because of the graphic nature of the image.
- The high attention came from the needle being injected into the eye and not knowing why.

Attention: IMAGE 22 was very attention-grabbing and memorable. Several participants mentioned that the image looks very scary or painful. Others were more curious about the reason behind the needle.

Does this image grab your attention? What grabbed your attention?

"I would want to know what it is. I personally would not know what's happening." – English, Female Young Adult Smoker, TNK

"Do you see how long the needle looks? That looks scary." – English, Female Adult Smoker, TNK

"Yes, because I don't like needles, and especially in the eye." – Spanish, Female Youth, PHX

"Because there's a needle being stuck into someone's eye." – English, Male Youth, DAL

"Somebody is getting poked in her eye...and no one wants to be poked in the eye." – English, Male Adult Smoker, PHX

"Yes, it definitely would because that's scary. That's scary. You can see the needle. Your eye is open and a needle is coming toward your eye, that's scary." – English, Female Adult Smoker, TNK

"It's weird and scary at the same time." – English, Male Adult Smoker, DAL

"Yes...it's interesting. I'm kinda curious — why would they need to put a needle in this person's eye?" – English, Male Youth, TNK

"Because it's an image I've really never seen before and it's kind of weird because I never thought the needle can be poking an eyeball." – English, Male Youth, TNK

"Yes...it looks painful." – English, Female Youth, PHX

Is this image worth remembering?

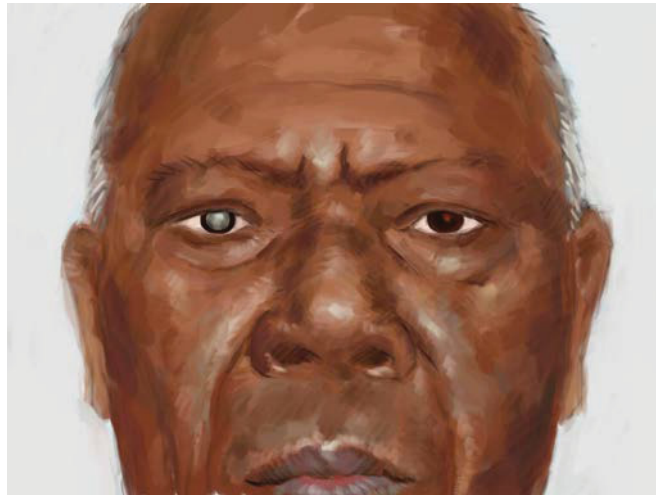
"Yes, because it's caused curiosity to me." – English, Female Young Adult Smoker, TNK

"It's terrifying. I am terrified of needles, so this is my worst nightmare." – English, Male Young Adult Smoker, DAL

"I don't want this ever happening." – English, Female Young Adult Smoker, DAL

IMAGE 23

BLINDNESS (2/2)



INTENDED CREATIVE CONCEPT

Senior aged African American male with cataracts in one eye due to smoking.

POTENTIAL WARNING STATEMENT

WARNING: Smoking causes cataracts, which can lead to blindness.

OVERVIEW

Clarity of image:	Low
Clarity of message:	Low
New information:	Yes
Attention:	Low

SUMMARY

- For most participants **IMAGE 23** is unclear upon initial exposure; many had to be shown the larger image for clarity.
- A large number could not glean any health consequences from the image. Some just saw a man with two different colored eyes, while others suggested that it was a man who was unhappy or sad as a smoker. A few guessed that the image was making a racial statement about smokers and mentioned that it could come across as stereotypical (e.g., smokers tend to be black, etc.).
- Most of those who perceived blindness or a relationship between smoking and "eye problems" said this would be new information.

- The message and new information behind the image was more memorable than the image itself. The image itself was not as attention-grabbing as other images, and was never selected when presented in the larger plot.

VERBATIMS

First impressions: For **IMAGE 23**, many participants could tell there was something wrong with the man's eye, though several had to be shown the larger image for clarity. A few noticed the color of his skin and/or the expression on his face.

"Blindness." – English, Female Young Adult Smoker, DAL

"He must have lost eyesight of eyes." – English, Male Young Adult Smoker, PHX

"It looks like the person is blind on the left eye." – English, Female Youth, DAL

"Someone is blind in one eye." – Spanish, Male Young Adult Smoker, TNK

"It looks like this man is blind in one eye." – English, Male Adult Smoker, TNK

[Shown larger image] "Something wrong with his eye." – English, Female Young Adult Smoker, PHX

[Shown larger image] "It's got two different colored eyes but I don't — it does not really make me think it's a warning of anything." – English, Female Adult Smoker, PHX

"My first impression, I had to look at it for a minute and then I see that the eyes are two different colors. I think what's being shown is that he's got some kind of disease or something's happened to his eyes because of smoking." – English, Female Adult Smoker, TNK

[Shown larger image] "I don't know why the eyes are like that. Maybe he can't see in one eye? Or maybe they are different colors?" – Spanish, Male Adult Smoker, PHX

"He has something in his eyes. He looks ill. The person looks ill. I don't know what's up with his eye. I don't get it." – Spanish, Female Young Adult Smoker, DAL

"It looks like a sad man...his face is all crippled by the forehead like he's angry or sad." – English, Female Young Adult Smoker, PHX

"I don't really see that as a warning." – English, Female Adult Smoker, PHX

"It's not a happy image to me. I would go on a ledge and say that it would be marketed toward a race, maybe." – English, Male Young Adult Smoker, DAL

"An African American man...[shown larger image] I'm kind of seeing like spots and different color spots on his face...this one is like gray and this one is like a darkish gray." – English, Female Youth, DAL

Image/Message clarity: Many found **IMAGE 23** confusing because they could not tell, at first glance, that anything was noticeably wrong with the man. The interpretations of **IMAGE 23** depended on what participants noticed about the image. Most conjectured that the image conveyed the effects smoking can have on eyesight. A few guessed that the image was making a racial statement about smokers.

"It confuses me...because I don't really see why there would be a face on it." – English, Male Youth, TNK

"It isn't clear, I don't know." – English, Male Youth, TNK

"I don't understand." – Spanish, Male Adult Smoker, PHX

"Have to look closer...doesn't look like there's any other issues." – English, Male Adult Smoker, TNK

"I feel as if someone were to take a quick look at this, they wouldn't really think this man were blind." – English, Male Young Adult Smoker, TNK

"I know he has an issue with his eyes, but I don't know exactly what it is. He has no shine in this eye, but I can't say what it is. I don't know if he is blind or not. I don't know. He looks sick in general, but I don't know exactly what he has." – Spanish, Female Adult Smoker, DAL

"You can lose your eyesight from smoking. I think it's cataracts...it can cause blurriness in vision and cause you to lose your vision and stuff." – English, Female Young Adult Smoker, DAL

"I have no idea what they are trying to get at here. I mean, it's like one eye, is this accurate? Like one is glaucomic, possibly? I don't really see anything here that makes sense to me, for cigarettes." – English, Female Adult Smoker, TNK

"I don't know. It just looks like something is wrong with his eye." – English, Female Young Adult Smoker, PHX

"Looks like maybe smoking. I would like to say facial deformity and making you a blind man, blindness..." – English, Male Adult Smoker, DAL

"Maybe they're trying to say you could lose an eye due to smoking." – Spanish, Male Youth, DAL

"Smoking could lead to blindness. I guess cataracts and stuff like that." – English, Male Adult Smoker, DAL

"Eyesight can be affected. I would assume blindness maybe just based on the color of his eyes...it looks like he has a glass eye or something to that effect." – English, Female Adult Smoker, TNK

"I can't physically look at the person and say something is wrong with the person, but I think like maybe black people are more affected by it or something." – English, Male Adult Smoker, PHX

"It may seem like a stereotype. It might be saying that only black people smoke." – English, Male Youth, DAL

"A black person, I mean—but why...? I think with color it's a little misleading." – English, Female Adult Smoker, PHX

CREATIVE RECOMMENDATIONS

Group 1 – SECONDHAND SMOKE



Image 1

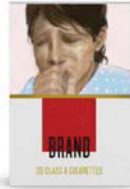


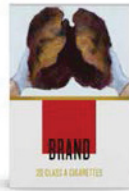
Image 2

IMAGE 1 Recommendations

- Retain this image, using it over Image 2 if only one is to be used because it is more attention-grabbing.
- Use an actual photograph of a Caucasian male.
 - Make it clear that the individual is 8–10 years old.
 - Show a haircut that clearly identifies the individual as a male.
 - Use an actual hospital gown, recognizable as such.
 - Maintain the look of dismay (e.g., sadness in the eyes).
- While we recommend a photograph, an illustration could be effective as long as it adheres to all the above.
- The current illustration could not be used as it is.

IMAGE 2 Recommendations

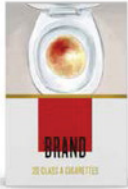
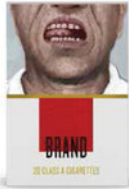
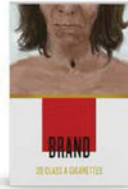
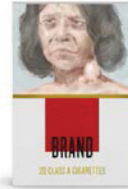
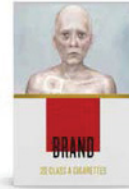
- Retain this image if both are to be used for this category, otherwise use Image 1 since it is more attention-grabbing.
- Use an actual photograph of a Hispanic male.
 - Make it clear that the individual is in his early teens, Hispanic and male.
 - Use an actual hospital gown, recognizable as such.
 - Project a chronic cough that is painful and wearing.
- While we recommend a photograph, an illustration could be effective as long as it adheres to all the above.
- The current illustration could not be used as it is.

Group 2 – LUNG DISEASE**Image 3****Image 4****IMAGE 3 Recommendations**

- Retain this image, using it over Image 4 if only one is to be used because it was twice as likely to be selected as attention-grabbing.
- Use an actual photograph of lungs damaged by smoking.
 - Keep the surgeon/coroner's hands in the picture, as they convey the realism of the resulting death rather than a "medical textbook" image.
 - Keep the gloves on the doctor to reinforce the undesirable state of the lungs.
 - **Make the blood on the gloves more discernible.**
- While we recommend a photograph, an illustration of higher quality with similar compositional and conceptual elements could be used.

IMAGE 4 Recommendations

- Retain this image if both are to be used for this category, otherwise use Image 3 because it was more attention-grabbing.
- Use an actual photograph of a middle-aged man with nasal cannula.
 - Make the oxygen tank even more visible (e.g., take up more space), as this added gravitas to the seriousness of the condition.
 - Retain the look of misery/sadness/resignation on the man's face.
- While we recommend a photograph, an illustration of higher quality could be used if it adheres to all the above.

Group 3 - CANCER**Image 5****Image 6****Image 7****Image 8****Image 9****IMAGE 5 Recommendations**

- Retain this image because it conveys new information.
- We strongly recommend the use of an actual photograph.
 - The frame of the toilet must be visible to help identify what is being shown.
 - Show tiles or toilet paper, for example, to further suggest the bathroom setting.
 - The contents of the toilet must clearly be identifiable as blood in urine, not vomit (for example).
- We do not believe that an illustration can be as effective in conveying the intended situation and message.

IMAGE 6 Recommendations

- This image is a good candidate for deletion.
 - It was chosen as attention-grabbing less frequently than images 5, 7 and 9.
- There's too much going on in the image: zoom in on the mouth area.
 - Adjust the frame to emphasize the tongue sores; ensure that the tongue sores are the focal point of the image.
 - Wrinkles and yellowing teeth can be visible, but should be secondary or tertiary sources of attention.
- In the current illustration, the shading on the skin can be misconstrued as dirt and/or uncleanness; a photograph or a better rendering of the illustration could solve this problem.

IMAGE 7 Recommendations

- Retain this image.
- While it does not necessarily convey new information, it is extremely clear and attention-grabbing, since it was chosen from the larger plot more often than any other image than one.
- This illustration conveys the intended message. An illustration of higher quality

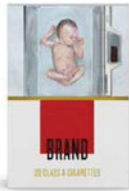
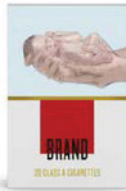
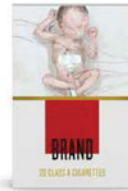
with similar composition and conceptual elements could be used.

IMAGE 8 Recommendations

- This image is a good candidate for deletion.
 - It wasn't clear what the message was even when the tumor was identified.
 - It was chosen as attention-grabbing less frequently than Images 5, 7 and 9.
- Use an actual photograph if this image is to be retained.
 - Make it easier to identify the tumor, possibly by zooming in closer to the tumor.
 - **Maintain the look of sadness/despair**, but this should not draw attention away from the tumor.
- An illustration could work if the tumor were more identifiable.

IMAGE 9 Recommendations

- Retain this image.
 - It is easily identifiable as a person with cancer.
 - It is more attention-grabbing than Images 6 and 8.
- Use an actual photograph of a cancer patient undergoing chemotherapy.
 - Make it clearer that the port is a port.
 - Possibly include a tube attached to the port.
 - Confirm on which side of the body the port should be placed.

Group 5 - FETAL EFFECTS/PREGNANCY**Image 14****Image 15****Image 16****IMAGE 14 Recommendations**

- Retain this image unless only one image in the category is to be used.
- It is attention-grabbing.
- Participants clearly demonstrated an emotional connection to the image.
- Improvements need to be made to the current image.
 - Make it clearer that the baby is lying on a scale rather than in an incubator or other device.
 - Make the weight of the baby on the scale bigger/more visible.
- While we recommend the use of actual photography, an illustration could work if the improvements cited above are made.

IMAGE 15 Recommendations

- Delete this image.
- Several participants could not identify anything abnormal about the infant.
- It was attention-grabbing when viewed as a single image, but was rarely selected from the plots.
- If the image is to be retained, add surgical gloves to the hands to create more contrast.

IMAGE 16 Recommendations

- Retain this image, using it over Images 14 and 15 if only one is to be used.
- While it does not necessarily convey new information, it is extremely clear—both in image and message.
- It is perhaps the single most attention-grabbing image of all images tested, since it was chosen from the larger plot more often than any other image.
- This illustration conveys the intended message, and an illustration of higher quality with the same composition and conceptual elements could be used.

Group 6 - ERECTILE DYSFUNCTION



Image 17



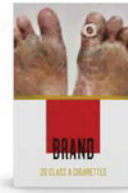
Image 18

IMAGE 17 Recommendations

- Delete this image.
- The image and associated message were almost never correctly identified.
- This image may be deemed inappropriate for some audiences.
- This image would need many revisions to better convey erectile dysfunction.

IMAGE 18 Recommendations

- Retain this image over Image 17, though neither can convey the message without the accompanying text warning.
- This image needs significant revisions, either as a photograph or illustration.
 - Pull back from the image, fully revealing that it is a man and a woman who have an intimate relationship in a bedroom.
 - Show the woman in a negligee without making it sexually inappropriate.
- Make it clear that the woman is consoling the man, not giving him a massage.
- **Make it clear that the man's emotion is shame**, not fatigue or body aches.

Group 7 - DIABETES**Image 19****Image 20****Image 21****IMAGE 19 Recommendations**

- Retain this image.
 - It conveys information that is new to many.
 - While it is not particularly attention-grabbing, it clearly connotes diabetes even without a text warning.
- An illustration of higher quality with similar compositional and conceptual elements could be used.
- A few enhancements could make this image clearer.
 - Zoom in a bit so the blood is more discernible in the composition.
 - Make the finger appear somewhat less “healthy.”

IMAGE 20 Recommendations

- Retain either this image or Image 21; both are attention-grabbing and convey new information.
- While we recommend actual photography, an illustration of higher quality with similar compositional and conceptual elements could be used.
- It appears that many will not associate either Image 20 or Image 21 with circulatory complications resulting from diabetes and smoking without the text warning, but this is not the fault of the image.

IMAGE 21 Recommendations

- Retain either this image or Image 20; both are attention-grabbing and convey new information.
 - It appears that many will not associate either Image 20 or Image 21 with circulatory complications resulting from diabetes and smoking without the text warning, but this is not the fault of the image.
- We recommend actual photography due to the questionable credibility of this image; some improvements are required if an illustration will be used.
 - Zoom in on the toe a bit more so the sore is easier to see, and it becomes the focal point of the image.
 - Revise or eliminate the shading/shadows on the bottoms of the feet to prevent perceptions that the subject is dirty and/or homeless.